



New Hampshire  
Coastal Program

Fall 2008

# *The Rip Tide*

The e-newsletter of the New Hampshire Coastal Program



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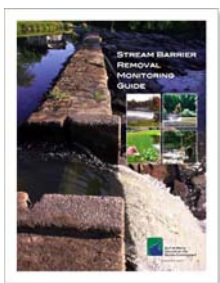
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## NEWS

### ■ Saving Maine ■

#### *Pepperweed Patrol Preventing Northward Spread of Invasive Plant*



**In July, volunteers pulled 19 bags of the invasive plant pepperweed from a marsh site at the Hampton Transfer Station. The plant must be pulled before it goes to seed in early August and is disposed of by leaving it in trash bags for at least a month in order to liquefy it and prevent further spread.**

the Pepperweed Patrol Program is to prevent the northward encroachment of this non-native plant, limit its current geographic range, and to preserve the New England coastal ecosystem.

The Pepperweed Patrol Program is working to prevent massive infestations by mobilizing an early detection-rapid response strategy, finding and removing small populations before they are allowed to grow. This summer, staff and volunteers identified two populations along the New Hampshire coast, one at Odiorne State Park in Rye and one at the Hampton Transfer Station in Hampton. Volunteer weed pulls were organized to remove the populations.

“Unlike programs that address invasive populations once they have become a problem, this initiative is proactive in the fight against the habitat destruction that could result due to this invasive plant. Hopefully this will allow us to catch pepperweed before it becomes a problem,” said Pepperweed Patrol Coordinator Catherine Foley.

Residents of the New Hampshire Seacoast are asked to be on the lookout for the plant. In July, the Coastal Program held identification trainings to aid locals in recognizing the plant, and has identification guides available.

The mature plant can reach up to 4 feet in height with a smooth, fleshy stem. The leaves are alternate; one leaf grows from each point along the stem, alternating the side of the stem it grows from. Pepperweed flowers in July, producing small white flowers in dense clusters. After it goes to seed in late July and early August, its flowers brown and wither. Through the fall, watch for dense stands of 3 to 4 foot tall plants with dry, brittle clusters at the end of dry stalks.

The Coastal Program, in partnership with the U.S. Fish and Wildlife Service, has developed an innovative program designed to stop the spread of an invasive plant, perennial pepperweed (*Lepidium latifolium*), at the Massachusetts-New Hampshire border.

Perennial pepperweed is an aggressive non-native species in New England and poses a significant threat to habitat quality. Once a population is established, pepperweed creates dense, single-species stands, out-competing local fauna. These stands are also notorious for being poor habitat for native birds and mammals. Pepperweed has been a major agricultural nuisance in the western U.S. for decades.

Pepperweed has been found in salt marsh edges, along roadsides, and in drainage ditches in Newburyport, Mass. and the islands of Boston Harbor. It is now spreading northward and isolated populations have been located along the New Hampshire coast, but there is no knowledge of the presence of pepperweed in Maine. The goal of



**Through the fall, watch for dense stands of 3 to 4 foot tall plants with dry, brittle clusters at the end of dry stalks.**

For more information on this destructive plant, see our [fact sheet](#). If you would like more information on the Pepperweed Patrol Program or to report a sighting, please contact the Coastal Program at (603) 559-1500 or email at [coastalprogram@des.nh.gov](mailto:coastalprogram@des.nh.gov).

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## ■ Isinglass River Conservation Initiative Completed ■

On a warm day late in August, officials from the Trust for the Public Land, town of Strafford, and Bear-Paw Regional Greenways gathered together with approximately 60 local, state and federal officials to celebrate the permanent protection of 868 acres of land in the town of Strafford, including approximately 1.5 miles of frontage on the Isinglass River.



**Rodger Krussman, state director for the Trust for Public Lands, presents Harmony Anderson of the Strafford Conservation Commission with a framed photo to thank the Commission for its hard work on the completion of the conservation initiative. Conservation of these 868 acres will help protect an important recreational fishery and travel corridor for wildlife, maintain water quality, and enhance opportunities for public access to the river.**

The focal point of the project, a 287-acre parcel located off Pig Lane, was purchased with the help of a \$1.3 million grant from the Coastal and Estuarine Land Conservation Program. Over the course of the initiative, three local landowners and the Strafford School Board generously agreed to donate land or easements to increase the total conserved land threefold. A culmination of countless hours of hard work and partnerships, the completion of this project was a cause for celebration and heartfelt thanks.

Coastal Program Communications Coordinator Catherine Coletti read a letter on behalf of DES Commissioner Burack congratulating the partnership on their tremendous success. The Coastal Program is the lead state agency for the CELCP program and coordinates the selection of projects to send to the National Oceanic Atmospheric Administration to compete in the national competition for funding.

“The Isinglass proposal immediately stood out to me as a spectacular project for its preservation of exceptional natural resources in our coastal watershed. Its ranking in the national competition demonstrates that it’s not only regionally relevant as shown in New Hampshire’s CELCP Plan, but also a national priority,” said Coastal Program Manager Ted Diers.

Two years ago, the Trust for Public Land negotiated an option agreement with the landowner and worked with the town of Strafford, which applied for federal funding from the Coastal and Estuarine Land Conservation Program. During the time of application, the property was in the final stages of planning board approval for a 70-lot subdivision.

The project ranked Number 1 in the country for CELCP funding and was included as the top priority for CELCP in the FY 2008 president’s budget. With the strong support of New Hampshire’s Congressional delegation, in particular Sen. Judd Gregg, Congress approved the funding. In addition to the federal grant, the property was acquired with \$150,000 from the town of Strafford, \$40,000 from the New Hampshire State Conservation Committee, and over \$100,000 from private donations, which made up the balance of the necessary funding to purchase the property.

Sen. Gregg has been a leader of coastal protection and a long-time supporter of various CELCP projects throughout the state. He authored the CELCP program as former ranking member of the Commerce Justice State appropriations subcommittee in 2001 and is the sponsor of legislation in the Senate to authorize the program.

“What an amazing partnership this has been!” said Harmony Anderson of the Strafford Conservation Commission. “Strafford has been so fortunate to have Bear-Paw Regional Greenways and the Trust for Public Land hard at work for land protection in town. This partnership truly brought together existing and new relationships – extending all the way from Center Strafford to Washington, DC!”

The project was aligned with the priorities of the [NHCELCP Plan](#), which was developed through a partnership that delineated 75 conservation focus areas using a state-of-the art analysis and a wealth of natural resources data. This project is located at the heart of one of those critical areas. Conservation of these parcels will help protect an important recreational fishery and travel corridor for wildlife, maintain water quality, and enhance opportunities for public access to the river.

### **New Isinglass River Management Plan Completed**

During the summer, the Strafford Regional Planning Commission completed the [Isinglass River Management Plan](#), which was prepared for the Isinglass River Local Advisory Committee in coordination with and funding from the DES Rivers Management and Protection Program. The RMPP complements and reinforces state and federal water quality laws and establishes instream flows for designated rivers to enhance the outstanding characteristics for which the river was nominated into the program.

The plan proposes management practices focused on protecting and conserving resources while balancing the development of land and water uses for recreation with other public needs within the river corridor and watershed. The five priority management issues identified in the plan are water quality, flood management, land protection, watershed planning, and stewardship. Cooperative partnerships and public involvement will support all phases of implementing the plan.

In 2002, the Isinglass River became one of 15 rivers designated in New Hampshire to be managed and protected for its outstanding natural and cultural resources in accordance with RSA 483 - the Rivers Management and Protection Act.

To serve on a local river management advisory committee, local citizens are nominated by their local municipal officials and appointed by the DES Commissioner. For more information about the Rivers Management and Protection Program please contact Steve Couture, Rivers Coordinator at (603) 271-8801 or [steven.couture@des.nh.gov](mailto:steven.couture@des.nh.gov) or visit the [RMPP homepage](#).

### **■ The Beauty of the Bugs ■**

A cast of insect characters lives, grows and dies in the freshwater of our coastal watershed, but their soap opera is largely unnoticed by their human counterparts. Some of them live only a few hours after emerging from the water as winged adults. Some of them are carnivorous, even cannibalistic. All have an integral role to play in the freshwater community's food web, providing meals for fish and in some cases, each other.

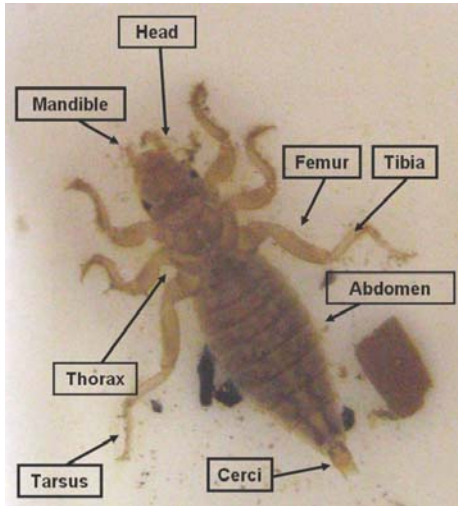
Aquatic insects have a larval stage that begins in the water. They then go through a series of life stages, which vary greatly by species, and complete a metamorphosis into mature adults. The way these insects develop and emerge is as diverse as the way they look and move.



## Intro to Taxonomy

Scientists use a hierarchy of categories to systematically classify animals. The animals within each category share common characteristics and as the commonalities become fewer, the animals within that category narrow, until finally the species level is reached. The taxonomic hierarchy starts with phylum, being the broadest and most inclusive grouping. Insects belong to the Phylum Arthropoda, meaning that they have exoskeletons, or outer shells that they shed as they grow. Lobsters are also in this phylum. Phylum is followed by class, order, suborder and family, subfamily, genus, and finally species.

## The Insect Body in Brief



Insect bodies are divided into three major regions: the head, thorax, and abdomen. The head contains the parts used for feeding and many sensory organs. The second region, or thorax, contains the muscles used to move the wings and legs. Behind the thorax is the abdomen, generally the longest region of an insect. It contains the reproductive and digestive organs. In some insects, paired structures (also called Cerci), including gills of various kinds and leglike outgrowths called anal prolegs, occur in the abdomen region.

### Shh ... It's a Secret

Although the swimming dragonfly and damselfly nymphs start out breathing out of gills in their rear ends, these ugly ducklings turn into the belles of the ball in their last lifestage. They come in a rainbow of colors and are fantastic flyers. The hellgrammite sports caterpillar-like legs protruding out of a long lean body with pronounced pinchers in the front (yes, these guys will bite), but the winged adult lives only a few days and is rarely seen.

Aquatic insects have different abilities to withstand certain degrees of pollution. Some can thrive in polluted conditions where others struggle. What types of insects inhabit streams, rivers and lakes are good indicators of what's happening with the water quality there. For this reason, aquatic insects are often used in biomonitoring assessments. Coupled with chemical monitoring – water temperature, dissolved oxygen content, Ph level and other measures – biomonitoring provides a complete picture of what's going on with the water. Unlike chemical monitoring, which can vary depending on conditions unique to that time and place, biomonitoring looks at the cumulative impacts of water conditions. This fall, volunteers from five watershed groups are sampling macroinvertebrates in the coastal watershed as part of the Coastal Volunteer Biological Monitoring Program. The data collected will contribute to water quality knowledge of local watersheds.

The three most sensitive insect orders to water pollution are mayflies, stoneflies and caddisflies. Sometimes there is pollution tolerant variability within orders. For instance, in the Order Odonata, damselflies are pollution tolerant, while dragonflies are pollution sensitive. Scud rhymes with crud, making it easy to remember that their presence and absence of more sensitive insects indicate higher levels of pollution in the water. However, scuds play an important part in the food chain, providing food for many fish. Other pollution tolerant insects include black fly larvae and midge larvae.

A complete telling of all of the secrets of the insects and their life cycles would take a book (Check out *Aquatic Entomology* by W. Patrick McCafferty for such a telling); however the following is a sampler of some of the standouts that live in our backyard streams. All photos included in the below table are of aquatic insects actually collected from New Hampshire's coastal watershed.

Next time you find yourself near a lake, river or stream, think of the insects, vulnerable to predation as larvae, and if lucky enough to make it to their fleeting adulthood, will strive to reproduce before death. It's a story worthy of a daytime drama.

**Mayfly Nymph**  
**Order: Ephemeroptera**



- **Most have three tails** (some have two); six single-clawed legs
- Gills on abdomen
- Mostly feed on microscopic algae and small bits of organic matter.
- Once they have emerged as adults, they no longer eat. Adults live a month or less, with some species hatching and reproducing in only a few hours!
- There are over 700 species of mayfly in North America.
- Pollution-sensitive

**Stonefly Nymph**  
**Order: Plecoptera**



- **ALWAYS has two tails**; six double-clawed legs
- Gills on legs on underside of body; some species have gills on mouthparts, abdomen or thorax
- Adapted for crawling among stones, gravel and detritus (decaying matter). Commonly found crawling or hiding among stones in streams.
- Some species are carnivores and others primarily eat fungi and bacteria associated with leaves breaking down.
- Adult lifespan ranges from a few days to five weeks.
- Close to 500 species in North America.
- Pollution-sensitive

**Caddisfly Larvae**  
**Order: Trichoptera**



- **Catepillar-like form**
- Some species build tube-shaped cases out of sand, stones, wood and plant matter. Other species are net-spinners and instead of making cases, attach silken nets to substrate materials and catch suspended food materials in them.
- Depending on the species, food consists of living plant material, detritus, and live prey.
- Trichoptera means “hairy wing”. Caddisflies turn into moth-like insects in adulthood, and unlike butterflies and moths, which have scales on their wings, caddisflies have hair, considered to be a less evolved trait.
- Over 1,200 species in North America!
- Pollution-sensitive

**Damselfly Nymph**  
**Order: Odonata**



**Dragonfly Nymph**  
**Order: Odonata**



- **Easy-to see antennae**
- Chewing mouthparts are unique with a highly developed labium, or appendage akin to a lower lip used for grasping food.
- Gills are not present along the body. Anal area is especially adapted for breathing.
- Exclusively carnivorous and opportunistically feed on prey; many species are cannibalistic.
- Adults may live from a few weeks to a few months, depending on the species.
- Approximately 450 species in North America
- Damselfly nymph is pollution-tolerant.
- Dragonfly nymph is pollution-sensitive.

**Helgrammite**  
**Order: Megaloptera**



- **Head has well-developed chewing mouthparts that are projected forward.**
- Exclusively carnivorous. Primarily eats other aquatic insects, some cannibalistic.
- Highly active, aggressive nature
- Rarely seen in the adult stage. Adults live only a few days.
- About 50 species in North America
- Somewhat pollution-tolerant

**Scuds**  
**Order: Amphipoda**



- **This freshwater crustacean is small and shrimp-like**
- Seven pairs of legs with the first two modified for grasping
- Occur primarily in shallower water, often resting in vegetation and debris and occasionally within soft substrate.
- Approximately 90 species in North America
- Pollution-tolerant

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## ANNOUNCEMENTS

### ■ Coastal Program Announces this Year's Grantees ■

The Coastal Program awarded seven grants for a total of \$241,772 in the 2008 competitive grant round. The grantees are the Blue Ocean Society for Marine Conservation, Great Bay Coast Watch, the Gundalow Company, the University of New Hampshire Marine Program, Rockingham County Conservation District, the DES Watershed Assistance Section and the town of Rye. In addition, the Coastal Program set aside grant funding for the Rockingham and Strafford Regional Planning Commissions and the Natural Resources Outreach Coalition to support local technical planning assistance to the 17 coastal zone municipalities.

#### 2008 Competitive Grant Award Winners

The Blue Ocean Society for Marine Conservation will coordinate cleanups and marine debris monitoring with a focus on adding new Adopt-a-Beach cleanup sites in Great Bay, Little Bay and along tidal tributaries. In addition, Blue Ocean will continue its educational programs at schools, beaches, marinas and onboard local sightseeing vessels, as well as coordinate the 2009 International Coastal Cleanup Day in New Hampshire. Visit the [Blue Ocean Society Web site](#) for more info on beach cleanups and educational programs.

[The Great Bay Coast Watch](#) will conduct volunteer monitoring at 16 sites around Great Bay. Volunteers will measure salinity, dissolved oxygen, temperature, fecal coliform levels, and other water quality parameters. Volunteers will also track phytoplankton blooms at sites in Hampton, Rye and New Castle. The Coast Watch will also develop a monitoring plan that identifies the scientific and educational rationale for sites and parameters and set up a future comprehensive monitoring plan.

The Gundalow Company will conduct a series of lectures, presentations, workshops, events and year-round educational programs for the public onboard the replica gundalow *Captain Edward Adams*, and in local schools. A new program entitled "Junior Stewards on the Gundalow" will target at-risk youth and other summer youth groups such as Big Brothers Big Sisters, New Heights Teen Center and day camps in the region. A complete schedule of programs will be posted on the [Gundalow's Web site](#).

Fresh Creek is a tidally restricted tributary to the Cocheco River. A perched, two-celled box culvert under Gulf Road, which conveys Fresh Creek from the upstream freshwater impoundment to its lower estuarine reaches, restricts the head of tide, creates a fish passage barrier that blocks more than four miles of essential diadromous fish habitat, and creates a freshwater impoundment with known dissolved oxygen impairments. [The UNH Marine Program](#) will establish baseline ecological conditions (i.e., water quality, nekton, tidal curves, and vegetation) of the Fresh Creek project area, model several restoration scenarios, and assess the feasibility of identified restoration alternatives for Fresh Creek. A feasibility report will be completed in an effort to answer the question of whether an estuarine community and diadromous fish passage can be re-established in the upper main stem of Fresh Creek.



[The Rockingham County Conservation District](#) will restore tidal connectivity to the upper reaches of the southern portion of Little River marsh (also known as Garland Brook) by excavating approximately 2,000 feet of tidal channels. These restored channels will allow fish access to landward habitats that are currently restricted and will allow for better freshwater run-off, both of which will help alleviate the mosquito problems in the area. Little River Marsh is located in North Hampton across Route 1A from North Hampton State Beach.

[The DES Watershed Assistance Section](#) in cooperation with the [Geologic Unit](#), will undertake a fluvial geomorphic assessment of the Exeter River Watershed, a process that entails a study of the drainage system's form and functions, including human impacts. Several sub-watersheds in the Exeter River basin have river reaches that do not meet state standards for aquatic life use due to poor results from habitat and biological surveys, while other sub-watersheds have known barriers to fish passage, such as dams and perched culverts. Many waterways contain improperly sized infrastructure, compromised riparian buffers, storm water discharges, and erosion and stream bank failure. These cumulative impacts are likely compromising riparian and in-stream habitat in the watershed. The project will develop a watershed-based plan containing specific recommendations for on-the-ground restoration and protection actions.

[The town of Rye](#) will purchase an easement to permanently protect a land parcel located near other protected conservation lands. The parcel includes a freshwater stream that flows directly into the Massacre and Wallis Marsh and then becomes Parsons Creek, which enters the ocean at Concord Point in Rye. The project includes several other funding sources including the Natural Resources Conservation Service Wetland Reserve Program, town of Rye conservation funds and the Coastal Estuarine Land Conservation Program. This conservation effort will permanently protect a large and unspoiled coastal land parcel that provides natural resource linkages and the potential for public access and passive recreational opportunities.

For more information on the pass-through grant program visit the [Coastal Program's Grants Web site](#).

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## ■ Coastal Program Submits Coastal Estuarine Land Conservation Program Proposals ■

In July, NHCP and partner organizations reviewed and submitted two proposals for consideration for funding under the Coastal and Estuarine Land Conservation Program, a tremendously competitive program where states vie for space on the national priority list to protect coastal lands with significant ecological value. The Coastal Program is the lead state agency for the CELCP program and coordinates the selection of projects to send to NOAA to compete in a national competition. In fiscal year 2008, the New Hampshire Isinglass River Conservation project ranked first in the nation.

For the fiscal year 2009 CELCP competition, NHCP received two project proposals totaling approximately \$2.9 million to protect about 3,370 acres of land. Submitted by the New Hampshire Fish and Game Department in partnership with the Southeast Land Trust of New Hampshire for \$1.5 million, the Pawtuckaway River Corridor project in Epping and Raymond would protect 369 acres, including 79 acres identified by the New Hampshire Wildlife Action Plan as high quality habitat. In addition, the project would protect about 90 percent of the remaining, conservable land within the Pawtuckaway River Conservation Focus Area as identified in the [NHCELP Plan](#) based on [The Land Conservation Plan for New Hampshire's Coastal Watersheds](#). The Coldrain Pond-Moose Mountains project, submitted by the Fish and Game Department in partnership with the town of New Durham and the Forest Society for approximately \$1.4 million, would protect 3,000 acres in New Durham and Brookfield.

[Detailed proposal summaries](#) posted on the [Coastal Program's CELCP Web site](#).

## ■ Local Grants Program Funding Available ■

The New Hampshire Estuaries Project is accepting project proposals for its annual local grants program. Selected projects will result in achievement or significant progress toward achievement of one or more action plans described in the NHEP Management Plan. An applicant may submit a project proposal for up to \$8,000 of NHEP funds; however a 50 percent match is required. An original proposal and five double-sided **copies must be received by NHEP Project Coordinator Dave Kellam, by 4 p.m. on September 25, 2008.** For more information and to download the request for proposals visit the [Estuaries Project Web site](#).

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## ■ Legislation Enabling Stormwater Utility Districts Signed Into Law By Governor Lynch ■

House Bill 1581, authorizing municipalities to create stormwater utility districts, was recently signed into law by Governor Lynch. These districts are a way for communities to support maintenance and improvements to stormwater infrastructure that reduce flooding and the amount of pollution, such as bacteria, salt, chloride, oil and grease, entering our water via stormwater systems.

[HB1581](#), which was introduced by Rep. Thomas Fargo of Dover, enables New Hampshire municipalities to create districts based on majority vote of the legislative body of the municipality. It also enables communities to join together and create a district that encompasses more than one town. These kinds of districts would be run by a Stormwater Utility Commission. Setting up a district involves stakeholder participation as well as public education.

Through the creation of a district, towns would be able to charge landowners a fee for their use of municipal stormwater systems. Fees would be assessed in a variety of ways, including how much impervious surface is on a given property or by land use classification. Unlike a tax, only users of the system contribute to the maintenance and improvement fund. If property owners can demonstrate zero stormwater runoff from their properties, they will not be charged a user fee. In this way, districts encourage implementation of techniques that eliminate runoff. Revenues can only be used to establish a fund dedicated to stormwater management.

Stormwater utility districts are especially relevant to MS4 towns, or communities which fall under Environmental Protection Agency regulations that limit pollutants in stormwater discharge. These municipalities are required to meet increasingly stringent federal regulations. Dover will be the first town in New Hampshire's coastal watershed to look at the feasibility of establishing a stormwater utility district with the assistance of Lisa Loosigian from DES. Elsewhere in the state, Concord, Franklin and Manchester are in various stages of stormwater utility consideration and development.

For general information about stormwater utility districts, check out the article [“The Stormwater Utility: Will it Work in Your Community,”](#) which appeared in the November-December 2000 issue of the *Stormwater Journal*. For information on how to set up a stormwater utility, try the [“How to Create a Stormwater Utility Guide,”](#) created by Chicopee and South Hadley, Mass.

## ■ Calendar of Events Available on Website ■

Current events are regularly posted online. [Check the DES calendar of events](#) frequently to find new postings. The following are upcoming events of particular interest to coastal folks:

■ [International Coastal Cleanup Day, September 20](#); Volunteers from across New Hampshire will be gathering together on coastal beaches and waterways to pick up litter and debris, along with over 350,000 volunteers worldwide.

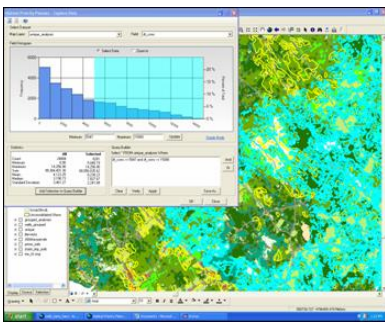
■ [Northeast regional tagging symposium, October 17](#); Symposium attendees will learn how fish tagging data is being used for stock assessments and for evaluating areas closed to commercial fishing.

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## NEW PUBLICATIONS & PLANNING TOOLS

### ■ Habitat Priority Planner ■



**What It Is:** This free software by the National Oceanic Atmospheric Administration Coastal Services Center creates maps that allow users to visualize potential land protection and restoration projects.

**What's Cool About It:** After the initial data setup, this tool allows you to manipulate the data interactively in front of a stakeholder group and make and change maps according to what the group wants to see. Users can see various scenarios on a map and change components at will to reflect new ideas and requirements. It moves users from ideas to maps.

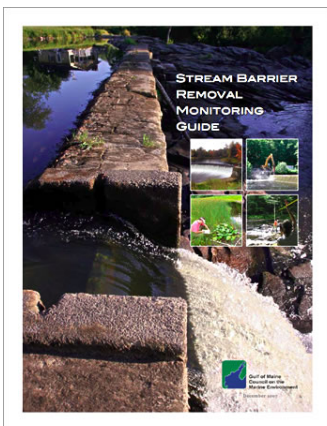
**Who Should Use It:** Those with intermediate experience with geographic information systems and with access to ESRI ArcMap 9.2 with Spatial Analyst and ServicePack 3. Imported GIS data also must meet specific requirements.

**How to Use It:** If not familiar with GIS, attend a GIS training or work with a regional planning commission. [Find info on trainings at NH GRANIT.](#)

**Where Can I Find More Information:** [Download the Habitat Priority Planner software and instructions.](#)

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### ■ Stream Barrier Removal Monitoring Guide ■



As New Hampshire's 2,506 dams age and increasingly need repair, they can pose significant public safety hazards. Dams and culverts also may create impassable barriers for migrating fish, and degrade water quality and ecosystem conditions. Many communities are looking at dam removal as a viable management option to reduce operating, maintenance, and insurance costs, as well as to restore river ecosystems and fish passage.

**What It Is:** The guide provides the scientific framework for monitoring the ecological effects of dam, culvert and other stream barrier removal projects throughout the Gulf of Maine. It gives information on eight critical monitoring parameters that characterize the physical, chemical, and biological impacts of a removal project. The monitoring protocols were developed through the input of approximately 70 scientists and other natural resources professionals.

**What's Cool About It:** Understanding the effectiveness of barrier removal requires systematic project monitoring and data reporting. Prior to the development of these standards, very few barrier removal projects were monitored post-removal and there was no consistency among projects to compare data even if there was post-removal data available.

**Who Should Use It:** Private entities, natural resource professionals, non-profit organizations, municipalities and others using/considering dam removal and culvert upgrades for stream restoration.

**How to Use It:** Sections are arranged topically within the guide. Detailed data sheets in Appendix E can be used to ensure that data collection, reporting, and management are systematic and coordinated.

**Where Can I Find More Information:** Download the guide from the [Gulf of Maine Council Web site](#). It was also featured in the [Coastal Services Center's July/August magazine issue](#).

As an addendum, the Stream Barrier Removal Guide protocols are being used to assess the Merrimack Village Dam Removal Project in Merrimack, New Hampshire. And with NOAA's first-ever "dam cam," viewers can see the action as backhoes and bulldozers take down the dam's concrete wall and restore the flow of the Souhegan River, a major tributary to the Merrimack River. Visit the ["dam cam"](#) for more.

## ■ Municipal EcoLink ■



**What It Is:** New monthly e-bulletin for local government entities.

**What's Cool About It:** It's a fast way to get information about environmental rule and law changes as well as DES grants, loans, and other pertinent information.

**Who Should Use It:** Local government: boards of selectman, city councils, administrators, mayors, zoning boards, planning boards and conservation commissions.

**Where Can I Find More Information:** Download current and past issues at [www.des.nh.gov/news-bulletins.htm](http://www.des.nh.gov/news-bulletins.htm). Sign up for the e-distribution list at [www.des.nh.gov/enews](http://www.des.nh.gov/enews).

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### About this e-newsletter

*The Rip Tide* is NHCP's quarterly e-newsletter.

All subscribers' e-mail addresses on this list are kept confidential and are not shared by NHCP.

Contact Catherine Coletti, editor, at (603) 559-0024 or [Catherine.coletti@des.nh.gov](mailto:Catherine.coletti@des.nh.gov) with questions or comments.

### About NHCP

NHCP is a federally approved coastal program authorized under the Coastal Zone Management Act and is administered by the New Hampshire Department of Environmental Services. NHCP strives to maintain a balance between the use and preservation of coastal resources. Through partnerships, funding and science, NHCP works to improve water quality and decision making in 42 coastal watershed communities, supports maritime uses, and restores coastal wetlands.